SSC CPO 20 March 2016 Afternoon Shift
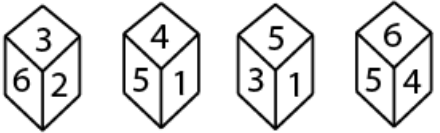
Reasoning

Question 1

Four portions of a cube are shown below. Identify the number at the bottom when top is 6 ?

A 6

B 2

C 1

D 5

Answer: C

Question 2

25	36	64
81	9	4
16	49	100
18	?	20

A 14

B 22

C 16

D 19

Answer: C

Explanation:
The pattern followed here is,

$$\Rightarrow \sqrt{25} + \sqrt{9} + \sqrt{16} = 5 + 3 + 4 = 18 \text{(vertically)}$$

$$\Rightarrow \sqrt{36} + \sqrt{9} + \sqrt{49} = 6 + 3 + 7 = 16 \text{(vertically)}$$

$$\Rightarrow \sqrt{64} + \sqrt{4} + \sqrt{100} = 8 + 2 + 10 = 20 \text{(vertically)}$$

Hence, option C is the correct answer.

Question 3

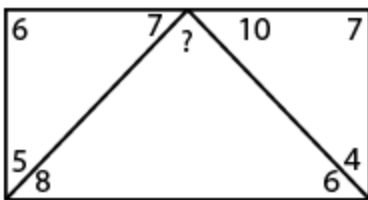| 6	5	3	10
2	8	?	4
4	6	3	8
5	9	15	3

A 7

B 6

C 4

D 5

Answer: C

Question 4

A 8

B 7

C 5

D 6

Answer: B

Question 5

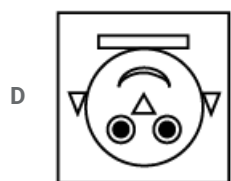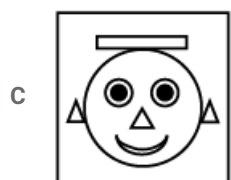| 6	11	25
8	6	16
12	5	?

A 18

B 16

C 12

D 22

Answer: D

Instructions

In each of the following questions, from the given answer figures, select the one is which the question figure is hidden/embedded.

Question 6

A

B

C

D
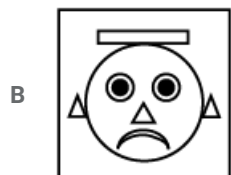
Answer: C

Question 7

A

B

C

D
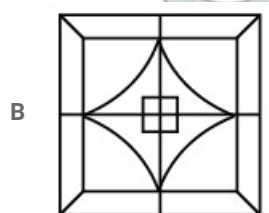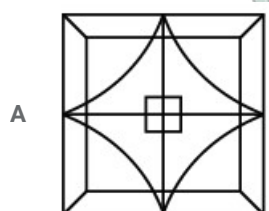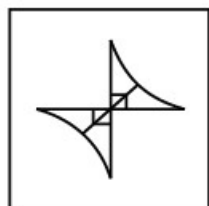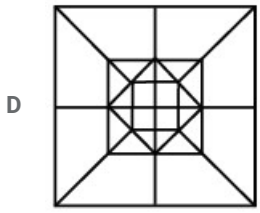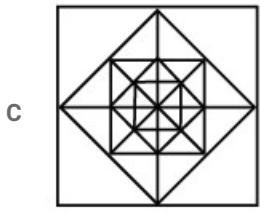
Answer: C

Instructions

In each of the following questions, which answer figure will complete the pattern in the question figure ?

Question 8

A

B

C

D
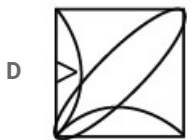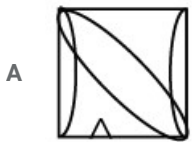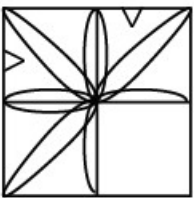
Answer: B

Question 9

Fig

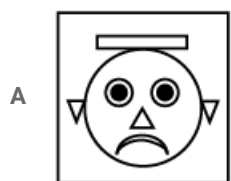**A** Fig1

B Fig2

C Fig3

D Fig4

    Answer: B

Instructions

In the each of the following questions, find the odd word/letters/number pair from the given alternatives.

Question 10

A 325

B 50625

C 225

D 3375

    Answer: D

Question 11

A IKMO

B ACEG

C FHJL

D TVWY

    Answer: D

Question 12

A IGEC

B AYWY

C QOMK

D YWUS

    Answer: B

Question 13

A Cringe

B Crisp

C Brittle

D Crunch

    Answer: A

Question 14

A Cynicism

B Fatalism

C Optimism

D Pessimism

Answer: C

Question 15

A 25

B 15

C 18

D 21

Answer: A

Explanation:
Except "25" other numbers given in the question are divisible by "3"

Hence, option A is the correct answer.

Instructions

A word is represented by only one set of numbers as given in any one of the alternatives. The set of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its coloumn, e.g., 'A' can be represented by 01, 20 e.t.c., and 'B' can be represented by 56, 65 e.t.c. Similarly, you have to identify the set for the word given in each question .

Question 16

CARS

MATRIX-I

	0	1	2	3	4
0	E	A	R	W	P
1	W	P	A	E	R
2	A	W	P	R	E
3	P	R	E	A	W
4	R	E	W	P	A

MATRIX-II

	5	6	7	8	9
5	S	B	K	T	C
6	B	C	T	K	S
7	T	S	C	B	K
8	K	T	S	C	B
9	C	K	B	S	T

A 66, 20, 31, 88

B 77, 33, 40, 69

C 96, 00, 23, 99

D 95, 01, 13, 77

Answer: B

Question 17

SILK

MATRIX-I   MATRIX-II

	0	1	2	3	4
0	M	L	F	H	B
1	H	B	M	L	F
2	L	F	H	B	M
3	B	M	L	F	H
4	F	H	B	M	L

	5	6	7	8	9
5	I	K	S	U	N
6	U	N	I	K	S
7	K	S	U	N	I
8	N	I	K	S	U
9	S	U	N	I	K

A   76, 67, 33, 68

B   76, 66, 33, 68

C   76, 67, 32, 68

D   76, 67, 32, 65

Answer: C

Instructions

In each of the following questions, select the related word/letters/number from the given alternatives.

Question 18

36 : 50 :: 64 : ?

A   78

B   70

C   72

D   82

Answer: D

Question 19

R : ARE :: U : ?

A   URE

B   VEE

C   IUE

D   YOU

Answer: D

Explanation:
The sound of the word "ARE" is same as the sound of the letter "R".

Similarly, the sound of the word "YOU" is same as the sound of the letter "U"

Hence, option D is the correct answer.

Question 20

UASC : YEWG :: DHLO : ?

A   LHUS

B   HSPL

C   HLPS

D   HLOD

   Answer: C

Explanation:

Expression = UASC : YEWG :: DHLO : ?

The pattern followed is :

U	A	S	C
(+4)	(+4)	(+4)	(+4)
Y	E	W	G

Similarly, for DHLO : **HLPS**

D	H	L	O
(+4)	(+4)	(+4)	(+4)
H	L	P	S

=> Ans - (C)

Question 21

heat : calorie :: sound : ?

A   decibel

B   forests

C   knot

D   richter

   Answer: A

Explanation:

Second is the unit of first, calorie is the unit of heat, similarly **decibel** is the unit of sound.

=> Ans - (A)

Question 22

Brain: natural :: ? : artificial

A   deserts

B   forests

C   computers

D   minerals

   Answer: C

Explanation:

Brain is a natural organ, similarly **computers** are man made, i.e. artificial.

=> Ans - (C)

Question 23

16 : 64 :: 49 : ?

A   97

B   343

C   196

D   93

   Answer: B

Explanation:
Expression = 16 : 64 :: 49 : ?

The pattern followed is = $m^n : (m)^{n+1}$

Eg :- $(4)^2 : (4)^3 = 16 : 64$

Similarly, $(7)^2 = 49$
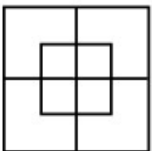
and $(7)^{2+1} = (7)^3 = 343$

=> Ans - (B)

Instructions
For the following questions answer them individually
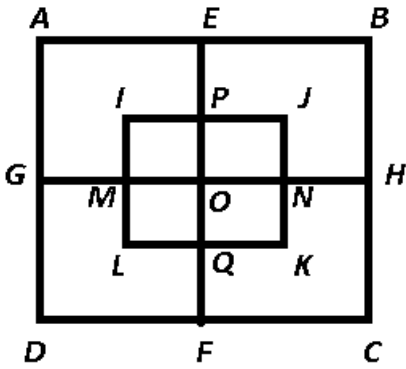
Question 24

The number of squares in the figure is :

A   8

B   14

C   10

D   12

   Answer: C

Explanation:

Small squares = IPOM, PJNO, ONKQ, OQLM,

Squares (containing 2 squares) = AEOG, EBHO, OHCF, OFDG

Big squares = ABCD, IJKL

Thus, total squares = **10**

=> Ans - (C)

Question 25

If '+' stands for division, '÷' stands for multiplication, 'x' stands for subtraction and '-' stands for addition, which one of the following expressions is correct ?

A   18 + 6 ÷ 7 x 5 - 2 = 18

B   18 ÷ 6 x 7 + 5 - 2 = 22

C   18 ÷ 6 - 7 + 5 x 2 = 20

D   18 x 6 + 7 ÷ 5 - 2 = 16

   Answer: A

Explanation:
(A) : 18 + 6 ÷ 7 x 5 - 2 = 18

$\equiv 18 \div 6 \times 7 - 5 + 2 = 18$

L.H.S. = $(\frac{18}{6} \times 7) - 5 + 2$

= $21 - 3 = 18 =$ R.H.S.

=> Ans - (A)

Instructions

In each of the following questions, a piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.

Question 26

Question Figures

A

B

C

D
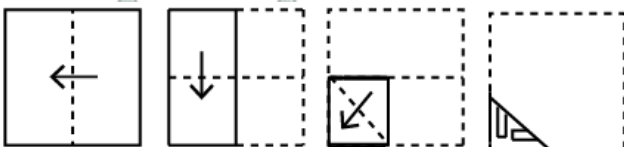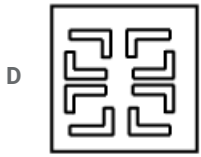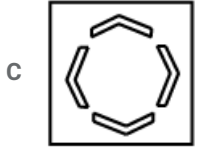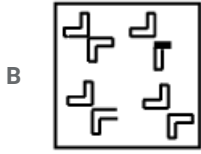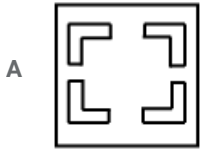
Answer: D

Question 27

Question Figures

A

B

C

D
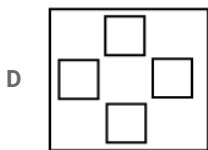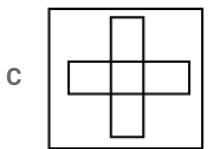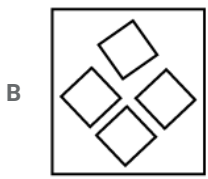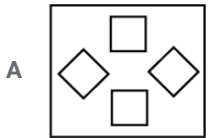
Answer: D

Instructions

For the following questions answer them individually

Question 28

If RAMAYANA is written as BOBZBNBS, then GRANTH is written as _____

A HSBOUI

B IVPBTH

C IUOBSH

D IUOCSI

   Answer: C

Explanation:

Expression : RAMAYANA is written as BOBZBNBS

The pattern followed is that if we reverse the word, we get :

A	N	A	Y	A	M	A	R
(+1)	(+1)	(+1)	(+1)	(+1)	(+1)	(+1)	(+1)
B	O	B	Z	B	N	B	S

Similarly, for GRANTH : **IUOBSH**

| H	T	N	A	R	G
(+1)	(+1)	(+1)	(+1)	(+1)	(+1)
I	U	O	B	S	H

=> Ans - (C)

Instructions

In each of the following questions, from the given alternative words, select the word which cannot be formed using the letters of the given word:

Question 29

AUTOBIOGRAPHY

A TROOP

B BRIGHT

C GRAPHIC

D TROPHY

   Answer: C

Explanation:

The word AUTOBIOGRAPHY does not contain any 'C', thus the term **Graphic** cannot be formed.

=> Ans - (C)

Question 30

GEMDISTIONARY

A GAME

B STAR

C MEGASITY

D DISTART

Answer: D

Explanation:

The word GEMDISTIONARY does not contain any two T's, thus the term **Distart** cannot be formed.

=> Ans - (D)

Instructions

In each of the following questions one or two statements are given, followed by two Conclusions, I and II. You have to consider the statement to be true, even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions can definitely be drawn from the given statement. Indicate your answer.

Question 31

Statement
Economic security makes people better and happier and has a good influence on their personality.
Conclusions
I. People who earn enough money are happier
II.To have a good personality people should be economically sound.

A Only I follows.

B Both I and II follow

C Only II follows.

D Neither I nor II follows

Answer: A

Explanation:

The above statement indicates that having economic security, meaning those who earn more money are happier and it also has a good influence on their personality, but vice-versa is not true, hence second conclusion does not follow.

Thus, only conclusion I follows.

=> Ans - (A)

Question 32

Statements
1. Authors are learned people
2. Some doctors are authors
Conclusions
I. Some doctors are learned people
II. Some learned people are doctors.

A Both I and II are implicit

B Neither I nor II is implicit

C Only I is implicit

D Only II is implicit

Answer: A

Explanation:

The venn diagram for above statements is :
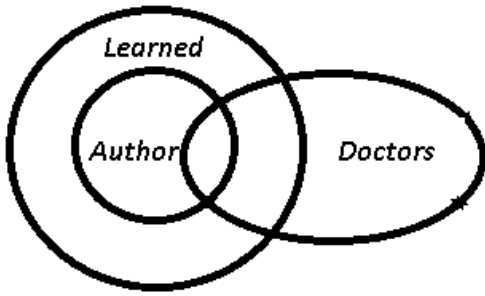
Conclusions
I. Some doctors are learned people = true
II. Some learned people are doctors = true

Thus, both I and II are implicit.

=> Ans - (A)

Instructions
For the following questions answer them individually

Question 33

Choose from the four diagrams given below, the one that illustrates the relationship among Languages, Japanese, German.

A

B

C

D
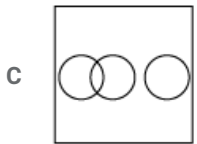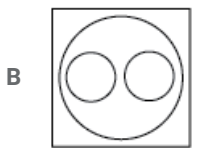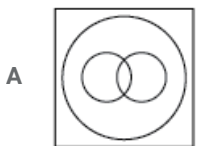
Answer: B

Explanation:
Both Japanese and German are languages but are completely different from each other, hence the venn diagram that best describes above relationship is :
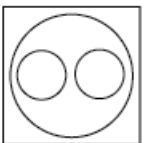
=> Ans - (B)

Question 34

In each of the following questions, a series is given, with one/two term missing. Choose the correct alternative from the given ones that will complete the series.

ZbYa XdWc VfUe ?

A   TgSh

B   ThSg

C   ThSi

D   ShTg

   Answer: B

Explanation:
Series : ZbYa XdWc VfUe ?

In the above series, the capital letters are written in reverse order starting from the end, and the small letters are written sequentially according to the English alphabetical series alternatively.

Thus, before VU, we have = TS

and after ef, we have = hg (order changed)

Thus, missing term = **ThSg**

=> Ans - (B)

Question 35

In each of the following questions, a series is given, with one/two term missing. Choose the correct alternative from the given ones that will complete the series.

6, 6, 10, 11, 14, 16, 18, ?

A   23

B   19

C   21

D   20

   Answer: C

Explanation:
Expression : 6, 6, 10, 11, 14, 16, 18, ?

The above series is a combination of two alternate series, i.e. (6,10,14,18) and (6,11,16,?)

1st : 6 (+4) = 10 (+4) = 14 (+4) = 18

2nd : 6 (+5) = 11 (+5) = 16 (+5) = **21**

=> Ans - (C)

Question 36

In each of the following questions, a series is given, with one/two term missing. Choose the correct alternative from the given ones that will complete the series.

4, 6, 8, 12, 14, 18, 20, 24, 30, ?, ?

A 32, 34

B 34, 36

C 32, 38

D 32, 33

    Answer: C

Explanation:
The pattern followed is = Prime number + 1.

3 + 1 = 4
5 + 1 = 6
7 + 1 = 8
11 + 1 = 12
13 + 1 = 14
17 + 1 = 18
19 + 1 = 20
23 + 1 = 24
29 + 1 = 30

So, the next prime numbers are 31, 37

31 + 1 = 32
37 + 1 = 38

Thus, missing numbers = **32, 38**

=> Ans - (C)

Question 37

Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it ?
s_nx_mnx_mn_sm_x

A mssxn

B nxyms

C nmxxn

D smnxx

    Answer: A

Explanation:
Series : s_nx_mnx_mn_sm_x

The above series is a combination of terms having 4 letters 'smnx' in that order.

= s**m**nx / **s**mnx / **s**mn**x** / smn**n**

=> Ans - (A)

Question 38

I walk 12 km to the North, then 10 kilometres East and then 12 km South. How far am I from the starting point ?

A 34 km

B 24 km

C 22 km

D 10 km

Answer: D

Explanation:

Let I start from point A and walk 12 km to the North, then 10 kilometres East to reach C and then 12 km South to finally stop at point D.
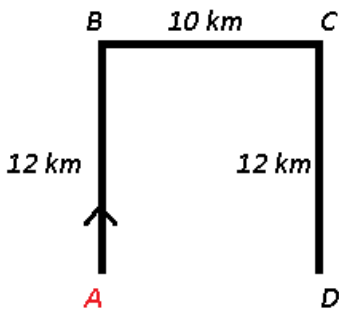
∴. I am **10 km** east of the starting point.

=> Ans - (D)

Instructions

In each of the following questions, if a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure ?

Question 39

A

B

C

D
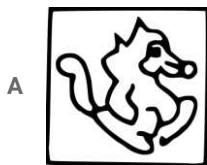
Answer: D

Explanation:

A vertical mirror is placed, so the object on the left will appear right in reverse position and vice-versa.

So the animal will be reversed and will now face towards right vertically, thus the middle two options will be eliminated.

Now of the remaining two options, the last option is more resembling of the question figure, hence fourth option is the right image.

=> Ans - (D)

Question 40

Given Figure

A

B

C

D
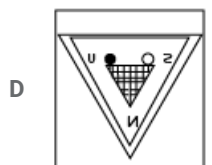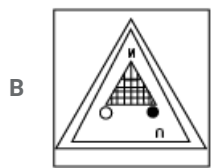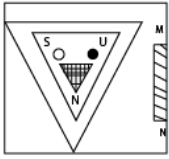
Answer: C

Explanation:
A vertical mirror is placed, so the object on the left will appear right in reverse position and vice-versa.

So the triangle in the middle will still face downwards, thus the second option will be eliminated.

Also, in the question figure, 'S' is at the left side of the triangle with a hollow circle, hence it will appear at right side with reverse image, hence third option is the right image.

=> Ans - (C)

Instructions
For the following questions answer them individually

Question 41

12 year old Sami is three times as old his brother

A 18 years

B 14 years

C 20 years

D 16 years

Answer: D

Question 42

Which figure best represents the relationship between Religion, Mosque, Temple ?

A

B

C

D
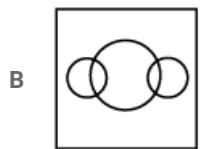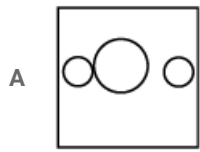
Answer: C

Explanation:
Both Mosque and Temple are religions of Muslim and Hindus respectively but are completely different from each other, hence the venn diagram that best describes above relationship is :
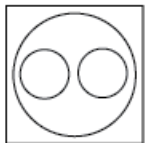
=> Ans - (C)

Question 43

Seeta and Ram both start from a point towards North. Seeta turns to left after walking 10 km. Ram turns to right after walking the same distance. Seeta waits for sometime and then walks another 5 km, whereas Ram walks only 3 km. They both then return to their respective South and walk 15 km forward. How far is Seeta from Ram ?

A 8 km

B 12 km

C 15 km

D 10 km

Answer: A

Explanation:
Let Seeta and Ram both start from point O towards North and walk 10 km. Then, Seeta walks another 5 km towards west to reach M, whereas Ram walks only 3 km towards east to reach P. They both then return to their respective South and walk 15 km forward, Seeta at S and Ram at R.
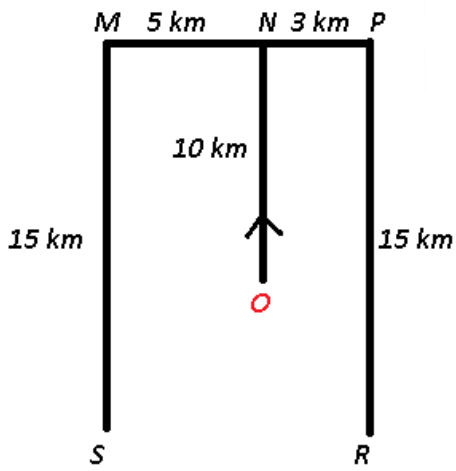
=> RS = 5 + 3 = 8 km

∴ Seeta is **8 km** west of Ram.

=> Ans - (A)

Question 44

If LACK is written as 396 then BACK is written as

A 66

B 56

C 86

D 72

Answer: A

Explanation:

LACK is written as 396

LACK ; $12 \times 1 \times 3 \times 11 = 396$

Similarly, BACK ; $2 \times 1 \times 3 \times 11 = 66$

=> Ans - (A)

Question 45

How many triangles are there in this figure ?
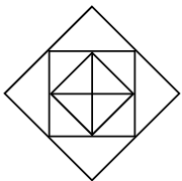
A 12

B 16

C 9

D 8

Answer: B

Explanation:
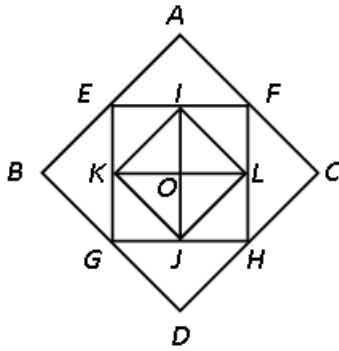
Small triangles = (AEF, AEG, GDH, CFH), (IEK, IFL, JLH, JKG), (IOK, IOL, JOL, KOJ)

Big triangles = IKL, JKL, IJK, IJL

Thus, total triangles = **16**

=> Ans - (B)

Instructions

In each of the following questions, arrange the following words as per order in the dictionary

Question 46

1. Analyze
2. Assignation
3. Arrival
4. Assassination
5. Analyst

A   2, 4, 5, 1, 3

B   1, 3, 5, 2, 4

C   1, 4, 2, 5, 3

D   5, 1, 3, 4, 2

   Answer: D

Explanation:

As per the order of dictionary,

= Analyst -> Analyze -> Arrival -> Assassination -> Assignation

≡ 5, 1, 3, 4, 2

=> Ans - (D)

Question 47

1. Directorial
2. Directory
3. Directive
4. Directional

A   1, 3, 4, 2

B   3, 4, 2, 1

C   3, 4, 1, 2

D 4, 3, 1, 2

Answer: D

Explanation:
As per the order of dictionary,

= Directional -> Directive -> Directorial -> Directory

$\equiv$ 4, 3, 1, 2

=> Ans - (D)

Instructions
For the following questions answer them individually

Question 48

If '+' stands for multiplication, '-' stands for division, 'x' stands for addition, '÷' stands for subtraction, then which one of the following equations is correct ?

A   12 x 5 + 4 - 5 ÷ 4 = 20

B   12 ÷ 5 + 4 - 5 x 4 = 18

C   12 + 5 - 4 x 5 ÷ 4 = 16

D   12 ÷ 5 - 4 x 5 + 4 = 22

Answer: C

Explanation:
(A) : 12 x 5 + 4 - 5 ÷ 4 = 20

L.H.S. = $12 + 5 \times 4 \div 5 - 4$

= $12 + 4 - 4 = 12 \neq$ R.H.S.

(B) : 12 ÷ 5 + 4 - 5 x 4 = 18

L.H.S. = $12 - 5 \times 4 \div 5 + 4$

= $12 - 4 + 4 = 12 \neq$ R.H.S.

(C) : 12 + 5 - 4 x 5 ÷ 4 = 16

L.H.S. = $12 \times 5 \div 4 + 5 - 4$

= $15 + 1 = 16 =$ R.H.S.

=> Ans - (C)

Question 49

A man starts from a point and moves 9 km South and then turns to East and goes 3 km. He turns South and walks 3 km and then moves 8 km towards West. How far is he from the starting point ?

A   15 km

B   12 km

C   11 km

D   13 km

Answer: D

Explanation:
Let the man starts from point S and moves 9 km South to reach T and then turns to East and goes 3 km. He turns South and walks 3 km

to point V and then moves 8 km towards West to finally stop at point W.
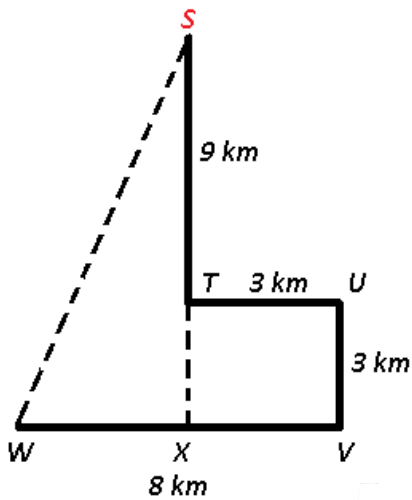
$$\Rightarrow (SW)^2 = (SX)^2 + (XW)^2$$
$$\Rightarrow (SW)^2 = (9+3)^2 + (8-3)^2$$
$$\Rightarrow (SW)^2 = 144 + 25 = 169$$
$$\Rightarrow SW = \sqrt{169} = 13 \text{ km}$$

∴ He is **13 km** from the starting point.

=> Ans - (D)

Question 50

A bus starts from point A and runs 20 kms towards South, turns to its right and runs 25 km. It then turns right again runs 20 km. Afterwards it runs 5 km in the East direction and reaches point B. How far is the bus from the starting point ?

A   35 km

B   20 km

C   25 km

D   30 km

Answer: B

Explanation:
A bus starts from point A and runs 20 kms towards South to reach point C, it then turns to its right and runs 25 km towards west. It then turns right again runs 20 km northwards to point E. Afterwards it runs 5 km in the East direction and reaches point B.
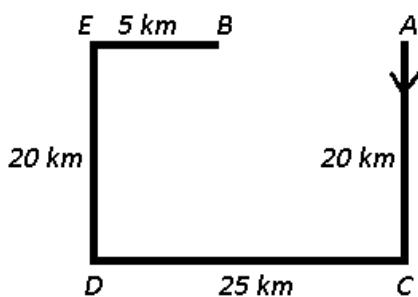
=> AE = $25 - 5 = 20$ km

∴ The bus is **20 km** west of the starting point.

=> Ans - (B)

General Awareness

Instructions

For the following questions answer them individually

Question 51

"Slipper animalcule" is the common name for:

A   Paramecium

B   Trypanosoma

C   Monocystis

D   Plasmodium

   Answer: A

Question 52

When average product of an input is at its maximum then:
(AP = Average product)
(MP = Marginal product)

A   AP = 0

B   AP = MP

C   AP > MP

D   AP < MP

   Answer: B

Question 53

The source of authority of the Indian Constitution is:

A   The Supreme Court

B   The Government

C   The People of India

D   The President

   Answer: C

Question 54

Maharaja Sawai Jai Singh of Jaipur had not built the observatory at ____

A   Varanasi

B   Allahabad

C   Ujjain

D   Mathura

   Answer: B

Question 55

Cancellation of thread occurs only when it reaches a:

A   Cancellation point

B   Error point

C   Virtual point

D   Target point

   Answer: A

Question 56

Which of the following statements about phloem transport is correct ?

A   Phloem transport occurs unidirectionally

B   Gravity influences phloem transport

C   Ca+is the most abundant cation in phloem sap

D   Sugar is transported in phloem as non-reducing sugar

   Answer: D

Question 57

The India Independence Bill was first presented in the House of Commons in London on:

A   August 10,1947

B   August 1, 1947

C   July 14, 1947

D   July 4, 1947

   Answer: D

Question 58

Which of the following plant hormones are incorrectly paired ?

A   abscisic acid-transpiration

B   auxins-apical dominance

C   cytokinins- senescence

D gibberellins- bud and seed dormancy

Answer: D

Question 59

Which of the following states has declared a ban on the use of plastic in the state for the first time ?

A Punjab

B Karnataka

C Gujarat

D Maharashtra

Answer: C

Question 60

Inhibition of photosynthesis in the presence of O_2 in C_3 plants is called:

A Hexose monophosphate shunt

B Pasteur effect

C Decker effect

D Warburg effect

Answer: D

Question 61

When temperature difference between liquid and its surroundings is doubled, the rate of loss of heat will:

A remain same

B bouble

C three times

D four times

Answer: B

Question 62

An agricultural department known as 'Diwan-i-kohi' was created by:

A Mohammad-bin-Tughlaq

B Alauddin Khilji

C Firoz Tughlaq

D Jalaluddin Khilji

Answer: A

Question 63

Which one of the following painters of Jahangir's reign was confi=erred the title of Nadir-ul-Asra ?

A   Bishandas

B   Mansur

C   Manohar

D   Daulat

Answer: B

Question 64

Which Article of the Constitution deals with fundamentals duties ?

A   Article 30 A

B   Article 50

C   Article 51 A

D   Article 25

Answer: C

Question 65

Who was appointed by the Union Sports Ministry of the Government of India as the head of the selection committee for Arjuna award so as to pick the eminent athletes for year's award (2015) ?

A   Justice Deepak Verma

B   Justice V.K. Bali

C   Justice Ranjana P Desai

D   Justice A.K. Patnaik

Answer: B

Question 66

In which of the following the colour is not due to d-d transition ?

A $[Ti(H_2O)_6]^{3+}$

B CoF_6^{3-}

C MnO_4^-

D $[Cu(NH_3)_4]^{2+}$

Answer: C

Question 67

A___ is a computer, appliance, or router that sits between the trusted and untrusted systems.

A bridge

B switch

C firewall

D hub

Answer: C

Question 68

Seventh schedule of the Constitution of India deals with:

A Allocation of Seats in the Council of States

B Distribution of power between the Union and the States

C Power and Authority of the Municipalities

D Powers of the Governor of the State

Answer: B

Question 69

Engineers of which of the following countries have developed the world's fastest car Venom GT with a top speed of 435 kilometres per hour ?

A USA

B South Korea

C Japan

D Germany

Answer: A

Question 70

The period of revolution of a certain planet in an orbit of radius R is T. Its period of revolution in an orbit of radius 4R will be:

A 8 T

B 4 T

C $2\sqrt{2}T$

D 2 T

Answer: A

Question 71

India's share in total global trade in value terms is:

A less then 1% but more than $\frac{1}{2}$%

B more than 2%

C less then $\frac{1}{2}$%

D between 1% and 2 %

   Answer: B

Question 72

Adding Cl_2 to benzene in the presence of $AlCl_3$ is an example of:

A Elimination reaction

B Substitution reaction

C None of the options

D Addition reaction

   Answer: B

Question 73

If total product is at its maximum then:
(AP = Average product)
(MP = Marginal product)

A AP = 0

B AP < 0

C MP = 0

D AP = MP = 0

   Answer: C

Question 74

John Locke profounded:

A Social Contract Theory

B Theory of Divine Theory

C Patriarchal Theory

D Theory of Force

   Answer: A

Question 75

Through there is no single theory which can explain the origin of south west monsoon, however it is believed that the main mechanism is the differential heating of land and sea during:

A   Winter months

B   Summer months

C   Cyclonic storms

D   South-west trade wind flow

Answer: B

Question 76

Which of the following considers the state as primarily A social organism ?

A   Historical Approach

B   Sociological Approach

C   Economic Approach

D   Psychological Approach

Answer: B

Question 77

Which one of the following related to Advisory Jurisdiction of the Supreme Court ?

A   Speaker of the Parliament seeking opinion from the Supreme Court

B   Election Commission seeking opinion from the Supreme Court

C   States seeking opinion from the Supreme Court

D   President of India seeks opinion on law or facts

Answer: D

Question 78

Who among the following has been appointed as the Chairman of India's Oscar Jury by Mumbai based Film Federation of India ?

A   Amol Palekar

B   Jaya Bachchan

C   Anupan Kher

D   Amitabh Bachchan

Answer: A

Question 79

Match List I and List II and mark the correct answer.
List 1 List 2
a. Chinook 1.Alps
b. Foehn 2.India
c. Siroccco 3.USA
d. Loo 4.Egypt

A   a=4, b=2, c=1, d=3

B   a=3, b=4, c=2, d=1

C   a=3, b=1, c=4, d=2

D   a=4, b=3, c=1, d=2

Answer: B

Question 80

Equilibrium output is determined by:

A   the equality between total Variable cost and Marginal revenue.

B   the equality between Marginal cost and marginal revenue

C   the equality between Average cost and Average revenue

D   the equality between total cost and total revenue.

Answer: B

Question 81

___percent to Delhites are suffering from Asthma and Rhinitis.

A   13%

B   10%

C   11%

D   12%

Answer: C

Question 82

Who among the following was ruler from The Kushan dynasty ?

A   Vikramaditya

B   Danti Durga

C   Khadphises I

D   Pushyamitra

Answer: C

Question 83

An employer goes on employing more and more of a factor units until:

A   the Average Revenue Productivity becomes equal to Marginal Revenue Productivity.

B   the Marginal Revenue Productivity becomes zero.

C   the Diminishing Marginal Returns sets into operation

D   the Marginal Revenue Productivity of a factor becomes equal to its reward

   Answer: D

Question 84

Which state's High Court imposes a complete ban on all types of buffalo and bull fights in the state, stating that it is against the Prevention of Cruelty to Animals Act, 1960 ?

A   Tamil Nadu

B   Maharashtra

C   Himachal Pradesh

D   Karnataka

   Answer: C

Question 85

Who is the author of the new book "Knowledge Innovation Strategy ?

A   Darjoy Datta

B   Ravinder Singh

C   Amish Tripathi

D   Parag Kulkarni

   Answer: D

Question 86

Gliders depend on the following energy for their flight:

A   wind energy

B   electrical energy

C   heat energy

D   chemical energy

   Answer: A

Question 87

Who established the Sadr-Diwani-Adalat during the British East India Company's rule ?

A   Wellesley

B   Warren Hastings

C   Dalhousie

D   Cornwallis

Answer: B

Question 88

Who among the following film makers has won the Best Documentary Producer award of the Madrid International Film Festival in July 2015 ?

A   Arun Chadha

B   Debalina Majumdar

C   Gopal Menon

D   Benoy Behl

Answer: D

Question 89

What was the rank of India in Human Development Index according to the Human Development Report released by UNDP in July 2014, which covered 187 countries ?

A   140th

B   73rd

C   130th

D   135th

Answer: D

Question 90

The Greek viewed "politics" on the basis of:

A   Both ethical and legalistic terms

B   Ethical terms

C   Terms of power

D   Legalistic terms

Answer: B

Question 91

The weight of a body at the centre of earth is:

A   half the wait at the surface

B   zero

C   twice the weight at the surface

D   Infinite

Answer: B

Question 92

A group of genes whose activity is coordinated by a DNA site is called:

A   operon

B   cistron

C   polysome

D   polypeptide

Answer: A

Question 93

Which one of the following has a maximum tendency to form M3 ion ?

A   N

B   Bi

C   P

D   As

Answer: A

Question 94

The correct sequence of countries on basis of fish catch in descending order:

A   China, Japan, Peru

B   Japan, China, Peru

C   China, Peru, Japan

D   Peru, China, Japan

Answer: C

Question 95

Apart from the availability of raw material location of an industry is also dependent on the availability of:

A environmental protection and vegetation

B man power and energy source

C transport and bio energy

D water and inputs

Answer: B

Question 96

Which article of the Constitution deals with money bills:

A Article 130

B Article 110

C Article 120

D Article 100

Answer: B

Question 97

Which of the following human genetic disorders is sex-linked ?

A Haemophilia

B Cystic fibrosis

C Albinism

D PKU

Answer: A

Question 98

By which of the following Act the system of Dyarchy was introduced at the centre ?

A 1909

B 1919

C 1935

D 1947

Answer: C

Question 99

Copper substances when exposed to air gains a green coating due to the formation of:

A CuO

B $CuCO_3 Cu(OH)_2$

c $CuSO_4$

D $Cu(NO_3)_2$

Answer: B

Question 100

Match List I and List II and mark the correct answer:
List I List II
a. Taiga 1. Jacobabad
b: monsoon 2. Inidia
c: Alpine 3. Veckhoyansk
d: Desert 4. La Paz

A a = 3, b = 2, c = 4, d = 1

B a = 4, b = 2, c = 1, d = 3

C a = 2, b = 4, c = 3, d = 1

D a = 3, b = 4, c = 1, d = 2

Answer: A

Instructions

For the following questions answer them individually

Question 101

The sum of three consecutive natural numbers divisible by 3 is 45. The smallest number is:

A 18

B 3

C 12

D 9

Answer: C

Explanation:

Let the three consecutive natural numbers divisible by 3 be $(3x - 3), (3x), (3x + 3)$

Sum = $(3x - 3) + (3x) + (3x + 3) = 45$

=> $9x = 45$

=> $x = \frac{45}{9} = 5$

∴ Smallest number = $3(5) - 3 = 12$

=> Ans - (C)

Average of the numbers = $\frac{45}{3} = 15$

Thus, middle number is 15, hence the three numbers must be = 12, 15, 18

Question 102

A sold a watch at a gains of 5% to B and B sold it to C at a gain of 4%. If C paid Rs. 91 for it, the price paid by A is:

A Rs. 83.33

B Rs. 84.33

C Rs. 83

D Rs. 82.81

Answer: A

Explanation:
Let cost price for A = Rs. $100x$

Profit % = 5%

=> Selling price for A = $100x + (\frac{5}{100} \times 100x) = Rs. \, 105x$

Thus, cost price for B = Rs. $105x$

Profit % = 4%

=> Selling price for B = $105x + (\frac{4}{100} \times 105x) = Rs. \, 109.2x$

According to ques, => $109.2x = 91$

=> $x = \frac{91}{109.2} = 0.8333$

∴ Price paid by A = $100 \times 0.8333 = Rs. \, 83.33$

=> Ans - (A)

Question 103

A can do a piece of work in 12 days and B in 24 days. If they work together, in how many days will they finish the work ?

A 12 days

B 20 days

C 15 days

D 8 days

Answer: D

Explanation:
Work done by working together = $\frac{1}{12} + \frac{1}{24}$

= $\frac{2+1}{24} = \frac{3}{24} = \frac{1}{8}$

∴ Time taken = $\frac{1}{8} = 8$ days

=> Ans - (D)

Question 104

A car completed a journey of 400 km in $12\frac{1}{2}$ hrs. The first $\frac{3}{4}$ th of the journey was done at 30 km/hr. Calculate speed for the rest of the journey.

A   45 km/hr

B   25 km/hr

C   40 km/hr

D   30 km/hr

Answer: C

Explanation:

Distance covered at 30 km/hr = $\frac{3}{4} \times 400 = 300$ km

Let remaining distance, i.e. 100 km be covered at speed = x km/hr

According to ques,

=> $\frac{300}{30} + \frac{100}{x} = \frac{25}{2}$

=> $\frac{100}{x} = 12.5 - 10$

=> $x = \frac{100}{2.5} = 40$

$\therefore$ Speed for the rest of the journey = **40 km/hr**

=> Ans - (C)

Question 105

A sells a car priced at Rs. 36,000. He gives a discount of 8% on the first Rs. 20,000 and 5% on the remaining Rs. 16,000. B also sells a car of the same make, priced at Rs. 36,000. He gives a discount of 7 % on the total price. Calculate the actual prices charged by A and B for the cars.

A   A = Rs. 33,500
    B = Rs. 33,400

B   A = Rs. 33,480
    B = Rs. 33,600

C   A = Rs. 33,450
    b: = Rs. 33,650

D   A = Rs. 33,600
    B = Rs. 33,480

Answer: D

Explanation:
Price of car = Rs. 36,000

A gives 8% discount on Rs. 20,000 and 5% on Rs. 16,000

=> Price charged by A = $[20,000 - (\frac{8}{100} \times 20,000)] + [16,000 - (\frac{5}{100} \times 16,000)]$

= $(20,000 - 1600) + (16,000 - 800) = Rs. 33,600$

Similarly, Price charged by B = $36,000 - (\frac{7}{100} \times 36,000)$

= $36,000 - 2520 = Rs. 33,480$

=> Ans - (D)

Instructions

The data given in bar diagram relate to the department wise admission of 320 students to B.S.C. (Honours) first year classes of a certain college in the given five subjects. Study the graph and answer the questions.
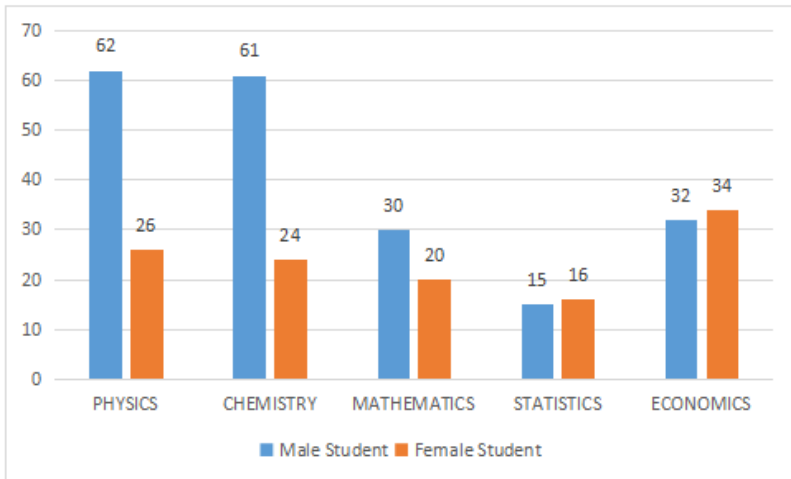
Question 106

The subject in which the difference in the number of male and female students is minimum in:

A   Economics

B   Physics

C   Statistics

D   Chemistry

Answer: C

Explanation:

Difference in the number of male and female students in the subject :

Physics = $62 - 26 = 36$

Chemistry = $61 - 24 = 37$

Mathematics = $30 - 20 = 10$

Statistics = $16 - 15 = 1$ **[Min]**

Economics = $34 - 32 = 2$

$\therefore$ The difference in the number of male and female students is minimum in **Statistics.**

=> Ans - (C)

Question 107

The difference of the choice of the subject between male and female students is maximum for the subject

A   Physics

B   Statistics

C   Economics

D   Chemistry

Answer: D

Explanation:

Difference in the number of male and female students in the subject :

Physics = $62 - 26 = 36$

Chemistry = $61 - 24 = 37$ **[Max]**

Mathematics = $30 - 20 = 10$

Statistics = $16 - 15 = 1$

Economics = $34 - 32 = 2$

$\therefore$ The difference in the number of male and female students is maximum in **Chemistry.**

=> Ans - (D)

Question 108

The total number of male students who got admitted in Mathematics and Economics as compared to the total number of female students getting admission in Mathematics and Economics is:

A   less by 17%

B   more by 4.2%

C   more by 14.8%

D   more by 12.8%

   Answer: C

Explanation:

Total number of male students who got admitted in Mathematics and Economics = $30 + 32 = 62$

Total number of female students getting admission in Mathematics and Economics = $20 + 34 = 54$

=> Male students are **more** than female students by = $\frac{(62-54)}{54} \times 100 = 14.8\%$

=> Ans - (C)

Question 109

The subject which the female students are finding difficult as compared to other subjects is:

A   Statistics

B   Economics

C   Mathematics

D   Chemistry

   Answer: D

Explanation:

The subject which the female students are finding difficult as compared to other subjects is the one in which the difference in the number of male and female students is maximum.

Difference in the number of male and female students in the subject :

Physics = $62 - 26 = 36$

Chemistry = $61 - 24 = 37$ **[Max]**

Mathematics = $30 - 20 = 10$

Statistics $= 16 - 15 = 1$

Economics $= 34 - 32 = 2$

$\therefore$ The subject which the female students are finding difficult as compared to other subjects is **Chemistry.**

=> Ans - (D)

Instructions

For the following questions answer them individually

Question 110

The value of the following is: $\frac{\sin\theta\ \cos ec\theta\ \tan\theta\ \cot\theta}{\sin^2\theta+\cos^2\theta}$

A 1

B $\tan\theta$

C 0

D 2

Answer: A

Explanation:

Expression : $\frac{\sin\theta\ \cos ec\theta\ \tan\theta\ \cot\theta}{\sin^2\theta+\cos^2\theta}$

$= \frac{\left(sin\theta\times \frac{1}{sin\theta}\right)\times\left(tan\theta\times\frac{1}{tan\theta}\right)}{1}$

$= 1$

=> Ans - (A)

Question 111

A train 150 metre long takes 20 seconds to cross a platform 450 metre long. The speed of the train in, km per hour, is:

A 108

B 100

C 106

D 104

Answer: A

Explanation:

Total distance $= 150 + 450 = 600$ m

Using, speed = distance/time

$= \frac{600}{20} = 30$ m/s

$\therefore$ Speed $= 30 \times \frac{18}{5} = 108$ km/hr

=> Ans - (A)

Question 112

If $\cos\theta + \sec\theta = \sqrt{3}$, then the value of $(\cos^3\theta + \sec^3\theta)$ is:

A 1

B $\frac{1}{\sqrt{2}}$

C 0

D $\sqrt{2}$

Answer: C

Explanation:

Given : $\cos\theta + \sec\theta = \sqrt{3}$ ---------(i)

Cubing both sides, we get :

=> $(\cos\theta + \sec\theta)^3 = (\sqrt{3})^3$

=> $cos^3\theta + sec^3\theta + 3(cos\theta)(sec\theta)(cos\theta + sec\theta) = 3\sqrt{3}$

=> $cos^3\theta + sec^3\theta + 3(cos\theta \times sec\theta)(\sqrt{3}) = 3\sqrt{3}$

$\because cos\theta \times sec\theta = 1$ and using equation (i),

=> $cos^3\theta + sec^3\theta = 3\sqrt{3} - 3\sqrt{3} = 0$

=> Ans - (C)

Instructions

The Pie-chart shows the result of a survey among 119060 people concerning the use of tobacco. Study the Pie-chart and answer the questions. (PIPE = $36°$)
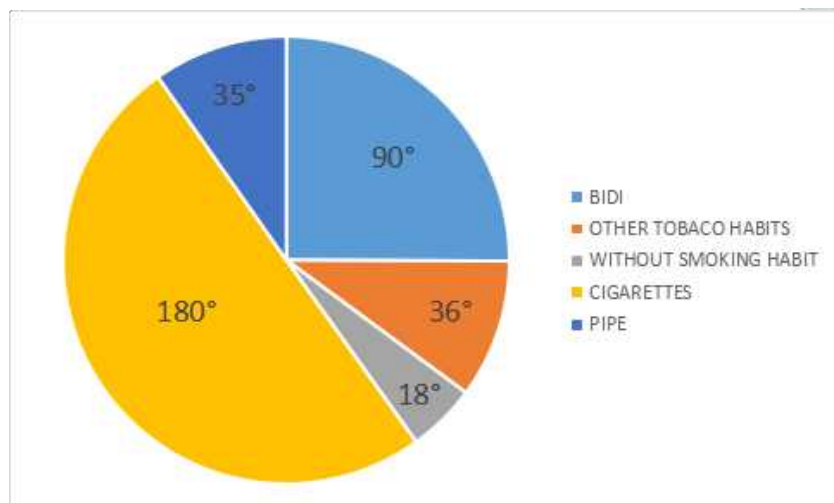
Question 113

Let P be the percentage of people using Cigarettes, Pipe and Bidi as their smoking means and Q be the percentage of people using other means as their smoking habits. Then P is more than Q by:

A 25%

B 10%

C 85%

D 75%

Answer: D

Explanation:

Degree of people using Cigarettes, Pipe and Bidi as their smoking means = $(180 + 36 + 90)° = 306°$

=> $P = \frac{306}{360} \times 100 = 85\%$

Degree of people using other means as their smoking habits = $36°$

=> $Q = \frac{36}{360} \times 100 = 10\%$

=> P is more than Q by = $85 - 10 = 75\%$

=> Ans - (D)

Question 114

The number of people smoking Cigarettes is:

A   53905

B   59305

C   59530

D   11906

   Answer: C

Explanation:
Total number of people surveyed = 119060

=> Number of people smoking Cigarettes = $\frac{180}{360} \times 119060$

= $\frac{119060}{2} = 59530$

=> Ans - (C)

Question 115

The number of people profering Bidi is:

A   29790

B   29765

C   35718

D   37185

   Answer: B

Explanation:
Total number of people surveyed = 119060

=> Number of people smoking Bidi = $\frac{90}{360} \times 119060$

= $\frac{119060}{4} = 29765$

=> Ans - (B)

Question 116

The number of Cigarette smoking people is greater than the number of Pipe smoking people by:

A   29765

B   47624

C　11906

D　59530

　Answer: B

Explanation:

Degree of people using Cigarettes = $180°$

Degree of people using Pipe = $36°$

=> Difference = $\frac{(180-36)}{360} \times 119060$

= $\frac{119060}{2.5} = 47624$

=> Ans - (B)

Question 117

The percentage of people under survey, who do not have any smoking habit is:

A　5.2%

B　5%

C　10%

D　7.5%

　Answer: B

Explanation:

Degree of people who do not have any smoking habit = $18°$

=> % of people who do not have any smoking habit = $\frac{18}{360} \times 100$
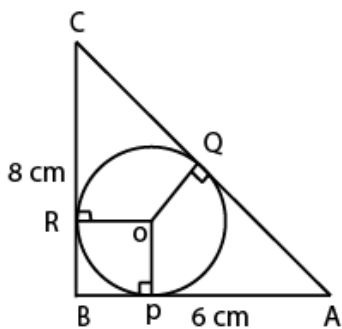
= $\frac{100}{20} = 5\%$

=> Ans - (B)

Instructions

For the following questions answer them individually

Question 118

$\triangle ABC$ is a right angled triangle with $AB = 6cm$, $BC = 8cm$. O is the in-centre of the triangle. The radius of the in-circle is:

A　3 cm

B　4 cm

C   2 cm

D   5 cm

   Answer: C

Explanation:

Let the inradius of the triangle be r cm

In right $\triangle$ ABC,

=> $(AC)^2 = (AB)^2 + (BC)^2$

=> $(AC)^2 = (6)^2 + (8)^2$

=> $(AC)^2 = 36 + 64 = 100$

=> $AC = \sqrt{100} = 10$ cm

Area of triangle = $\triangle = r \times s$, where r is inradius and s is semi-perimeter.

=> Area = $\triangle = \frac{1}{2} \times 8 \times 6 = 24 \ cm^2$

Semi-perimeter = $s = \frac{(10+8+6)}{2} = \frac{24}{2} = 12$ cm

$\therefore$ Inradius of triangle = $r = \frac{\triangle}{s} = \frac{24}{12} = 2$ cm

=> Ans - (C)

Question 119

The average age of husband, wife and their child 3 years ago was 27 years and that of wife and the child 5 years ago was 20 years. The present age of the husband is:

A   50 years

B   40 years

C   35 years

D   None of the options

   Answer: B

Explanation:

Let present age of husband, wife and child be h, w, c years respectively.

Average age of husband, wife and their child 3 years ago = 27 years

=> Total present ages of husband, wife and their child = $(27 + 3) \times 3$

=> $h + w + c = 90$ ---------(i)

Similarly, present age of wife and the child = $(20 + 5) \times 2$

=> $w + c = 50$

Subtracting equation (ii) from (i), we get :

=> $h = 90 - 50 = 40$

$\therefore$ The present age of the husband = **40 years**

=> Ans - (B)

Question 120

By selling an umbrella for Rs. 30, a shop-keeper gains 20%. During a clearance sale, the shop-keeper allows a discount of 10%. Find his gain percent during the sale season.

A   8

B   7

C   9

D $7\frac{1}{2}$

Answer: A

Explanation:

Selling price of umbrella = Rs. 30

Profit % = 20%

=> Cost price = $\frac{30}{(100+20)} \times 100$

= $\frac{100}{4} = Rs. 25$

When discount of 10% is given, new selling price = $30 - (\frac{10}{100} \times 30)$

= $30 - 3 = Rs. 27$

$\therefore$ Gain percent during the sale season = $\frac{(27-25)}{25} \times 100$

= $2 \times 4 = 8\%$

=> Ans - (A)

Question 121

A, B and C working separately can do a piece of work in 11 days, 20 days and 55 days respectively. In how many days, the work will be completed if A is assisted by B and C on alternate days ?

A   2

B   6

C   4

D   8

Answer: D

Explanation:

Let total work to be done = L.C.M.(11,20,55) = 220 units

A can complete it in 11 days, => A's efficiency = $\frac{220}{11} = 20$ units/day

B's efficiency = $\frac{220}{20} = 11$ units/day

and C's efficiency = $\frac{220}{55} = 4$ units/day

If A is assisted by B and C on alternate days, => work done on each day = (A+B), (A+C), (A+B), (A+C), ...

=> Work done in 2 days = (20+11) + (20+4) = 55

Number of days required = $\frac{220}{55} \times 2 = 8$ days

=> Ans - (D)

Question 122

The value of the following is: $\frac{0.2 \times 0.02 \times 0.002 \times 32}{0.4 \times 0.04 \times 0.004 \times 16}$

A 0.20

B 0.50

C 0.40

D 0.25

Answer: D

Explanation:

Expression : $\frac{0.2 \times 0.02 \times 0.002 \times 32}{0.4 \times 0.04 \times 0.004 \times 16}$

= $\frac{2 \times 2 \times 2 \times 32}{4 \times 4 \times 4 \times 16}$

= $\frac{1}{4} = 0.25$

=> Ans - (D)

Question 123

If $x = \sqrt[3]{7} + 3$ then the value of $x^3 - 9x^2 + 27x - 34$ is:

A 0

B 1

C 2

D -1

Answer: A

Explanation:

Given : $x = \sqrt[3]{7} + 3$

=> $x - 3 = \sqrt[3]{7}$

Cubing both sides, we get :

=> $(x - 3)^3 = (\sqrt[3]{7})^3$

=> $x^3 - 27 - 3(3x)(x - 3) = 7$

=> $x^3 - 27 - 9x^2 + 27x - 7 = 0$

=> $x^3 - 9x^2 + 27x - 34 = 0$

=> Ans - (A)

Question 124

In $\triangle ABC$ and $\triangle PQR$, $\angle B = \angle Q$, $\angle C = \angle R$. M is the midpoint of side QR. If $AB : PQ = 7 : 4$, then $\dfrac{area(\triangle ABC)}{area(\angle PMR)}$ is:
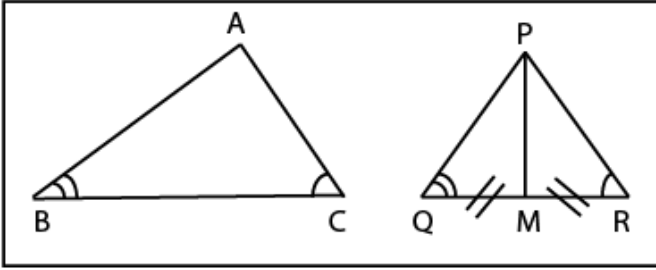
A $\dfrac{35}{8}$

B $\dfrac{49}{16}$

C $\dfrac{49}{8}$

D $\dfrac{35}{16}$

Answer: C

Explanation:
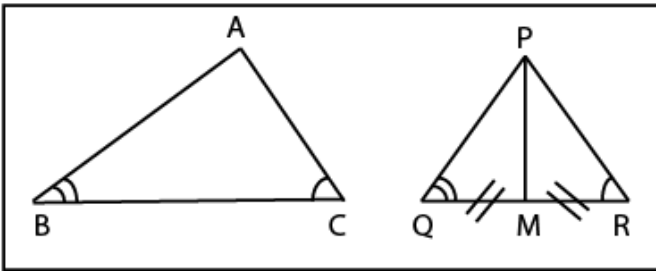
In $\triangle ABC$ and $\triangle PQR$,

=> $\angle B = \angle Q$

and $\angle C = \angle R$

Thus, $\triangle ABC \sim \triangle PQR$ (By AA criterion)

In $\triangle$ PQR, PM is the median, => It divides the triangle in two parts of equal areas.

=> $ar(\triangle PMR) = \frac{1}{2} \times ar(\triangle PQR)$ ------------(i)

Let $AB = 7$ cm and $PQ = 4$ cm

Now, ratio of areas of two similar triangles is equal to the square of ratio of their corresponding sides.

$\therefore \dfrac{ar(\triangle ABC)}{ar(\angle PMR)} = \dfrac{2 \times ar(\triangle ABC)}{ar(\angle PQR)}$ [Using equation (i)]

$= 2 \times \left(\dfrac{7}{4}\right)^2 = 2 \times \dfrac{49}{16} = \dfrac{49}{8}$

=> Ans - (C)

Question 125

Given $2^2 + 4^2 + 6^2 + \ldots\ldots + 40^2 = 11480$, then the value of $1^2 + 2^2 + 3^2 + \ldots\ldots + 20^2$ is:

A   2870

B   2868

C 2867

D 2869

  Answer: A

Explanation:
Given : $2^2 + 4^2 + 6^2 + \ldots\ldots + 40^2 = 11480$

=> $2^2[1 + 2^2 + 3^2 + \ldots + 20^2] = 11480$

=> $1^2 + 2^2 + 3^2 + \ldots + 20^2 = \frac{11480}{4}$

=> $1^2 + 2^2 + 3^2 + \ldots\ldots + 20^2 = 2870$

=> Ans - (A)

Question 126

The radius of a wire is decreased to one third. If volume remains the same, length will increase by:

A 6 times

B 1 time

C 3 times

D 9 times

  Answer: D

Explanation:
Let radius of wire is $r = 3$ cm and length = $h = 1$ cm

=> Volume of cylinderical wire = $\pi r^2 h$

= $\pi \times (3)^2 \times 1 = 9\pi \, cm^2$

New radius = $r' = \frac{1}{3} \times 3 = 1$ cm

Let new length = h' cm

If volume remains the same, => $\pi (r')^2 \times (h') = 9\pi$

=> $(1)^2 \times (h') = 9$

=> $h' = 9$

$\therefore$ Length was increased by = $\frac{h'}{h} = 9$

=> Ans - (D)

Question 127

If $\alpha + \theta = \frac{7\pi}{12}$ and $\tan\theta = \sqrt{3}$, then the value of $\tan\alpha$ is:

A $\sqrt{3}$

B 1

C 0

D $\frac{1}{\sqrt{3}}$

  Answer: B

Explanation:

Given : $\tan\theta = \sqrt{3}$

$\Rightarrow \tan\theta = \tan(\frac{\pi}{3})$

$\Rightarrow \theta = \frac{\pi}{3}$

Also, $\alpha + \theta = \frac{7\pi}{12}$

$\Rightarrow \alpha = \frac{7\pi}{12} - \frac{\pi}{3}$

$\Rightarrow \alpha = \frac{7\pi - 4\pi}{12} = \frac{\pi}{4}$

$\therefore \tan\alpha = \tan(\frac{\pi}{4}) = 1$

=> Ans - (B)

Question 128

An item is offered for sale at Rs. 250, less by successive discounts of 20% and 15%. The sale price of the item is:

A 82% of Rs. 250

B 77% of Rs. 250

C 68% of Rs. 250

D 65% of Rs. 250

Answer: C

Explanation:

Marked price = Rs. 250

Selling price after first discount of 20% = $250 - (\frac{20}{100} \times 250)$

= $250 - 50 = Rs.\,200$

Similarly, selling price after second discount of 15% = $200 - (\frac{15}{100} \times 200)$

= $200 - 30 = Rs.\,170$

$\therefore$ Sale price of item = $\frac{170}{250} \times 100 = 68\%$

=> Ans - (C)

Question 129

If $1^2 + 2^2 + 3^2 + \ldots\ldots + p^2 = \frac{p(p+1)(2p+1)}{6}$, then $1^2 + 3^2 + 5^2 + \ldots\ldots + 17^2$ is equal to:

A 1785

B 1700

C 980

D 969

Answer: D

Explanation:

Expression : $1^2 + 3^2 + 5^2 + \ldots\ldots + 17^2$

= $[1^2 + 2^2 + 3^2 + 4^2 \ldots\ldots + 16^2 + 17^2] - [2^2 + 4^2 + \ldots\ldots + 16^2]$

$= [1^2 + 2^2 + 3^2 + 4^2 \ldots\ldots + 16^2 + 17^2] - (2^2)[1^2 + 2^2 + 3^2 \ldots\ldots + 8^2]$

$= \left[\frac{17(17+1)+(34+1)}{6}\right] - \left[4 \times \frac{8(8+1)(16+1)}{6}\right]$

$= \left[\frac{17(17+1)+(34+1)}{6}\right] - \left[4 \times \frac{8(8+1)(16+1)}{6}\right]$

$= [51 \times 35] - [48 \times 17]$

$= 17 \times (105 - 48) = 969$

=> Ans - (D)

Question 130

The value of x in the following equation is:

$0.\dot{3} + 0.\dot{6} + 0.\dot{7} + 0.\dot{8} = x$

A   5.3

B $2\frac{3}{10}$

C $2\frac{2}{3}$

D $2.3\dot{5}$

Answer: C

Question 131

If a factory, the salary of each worker is increased in the ratio $22 : 25$ but the number of workers is decreased by $26\frac{2}{3}\%$. The net effect on the salary is

A $11\frac{1}{9}\%$ decrease

B   20% increase

C $16\frac{2}{3}\%$ decrease

D   10% decrease

Answer: C

Explanation:

Let original salary of 1 worker = Rs. 22

Let original number of workers = 300

Thus, total salary = $22 \times 300 = Rs.\ 6600$

=> New salary = Rs. 25

and new number of workers = $300 - \left(\frac{80}{3 \times 100} \times 300\right)$

$= 300 - 80 = 220$

=> Total new salary = $25 \times 220 = Rs.\ 5500$

∴ Net salary is **decreased** by = $\frac{(6600-5500)}{6600} \times 100$

$= \frac{100}{6} = 16\frac{2}{3}\%$

=> Ans - (C)

Question 132

The value of the following is: $\sqrt{12 + \sqrt{12 + \sqrt{12 + ...}}}$

A $2\sqrt{2}$

B $2\sqrt{3}$

C 2

D 4

   Answer: D

Explanation:

Let $x = \sqrt{12 + \sqrt{12 + \sqrt{12 + ...}}}$

$=> x = \sqrt{12 + x}$

Squaring both sides, we get :

$=> x^2 = x + 12$

$=> x^2 - x - 12 = 0$

$=> x^2 - 4x + 3x - 12 = 0$

$=> x(x - 4) + 3(x - 4) = 0$

$=> (x - 4)(x + 3) = 0$

$=> x = 4, -3$

$\because x$ cannot be negative, $=> x = 4$

$=>$ Ans - (D)

Question 133

The total surface area of a right pyramid on a square base of side 10 cm with height 12 cm is:

A 260 square cm

B 360 square cm

C 330 square cm

D 300 square cm

   Answer: B

Explanation:

Height = $h = 12$ cm and side of base = $s = 10$ cm

$=>$ Radius of base = $r = \dfrac{10}{2} = 5$ cm

Perimeter of base = $4 \times 10 = 40$ cm

Area of base = $10 \times 10 = 100 \; cm^2$

Thus, slant height = $l = \sqrt{r^2 + h^2}$

$=> l = \sqrt{(5)^2 + (12)^2}$

$=> l = \sqrt{25 + 144} = \sqrt{169} = 13$ cm

Thus, curved surface area of pyramid = $\dfrac{1}{2} \times$ Perimeter of base $\times$ slant height

$= \frac{1}{2} \times 40 \times 13 = 260 \ cm^2$

∴ Total surface area of pyramid = Curved surface area + Area of base

$= 260 + 100 = 360 \ cm^2$

=> Ans - (B)

Question 134

The simplified value of the following expression is: $\sqrt{\frac{1}{11-2\sqrt{30}}} - \sqrt{\frac{3}{7-2\sqrt{10}}} - \sqrt{\frac{4}{8+4\sqrt{3}}}$

A 0

B 1

C $\sqrt{2}$

D $\sqrt{3}$

Answer: A

Explanation:

Using, $a^2 + b^2 + ab = (a+b)^2$

=> $\sqrt{11 - 2\sqrt{30}} = \sqrt{(\sqrt{6})^2 + (\sqrt{5})^2 - 2\sqrt{6}\sqrt{5}} = (\sqrt{6} - \sqrt{5})$

Similarly, $\sqrt{7 - 2\sqrt{10}} = (\sqrt{5} - \sqrt{2})$

and $\sqrt{8 + 4\sqrt{3}} = \sqrt{8 + 2\sqrt{12}} = (\sqrt{6} + \sqrt{2})$

To find : $\sqrt{\frac{1}{11-2\sqrt{30}}} - \sqrt{\frac{3}{7-2\sqrt{10}}} - \sqrt{\frac{4}{8+4\sqrt{3}}}$

$= \frac{1}{(\sqrt{6}-\sqrt{5})} - \frac{3}{(\sqrt{5}-\sqrt{2})} - \frac{4}{(\sqrt{6}+\sqrt{2})}$

Rationalizing the denominator, we get :

$= \left[\frac{1}{\sqrt{6}-\sqrt{5}} \times \frac{\sqrt{6}+\sqrt{5}}{\sqrt{6}+\sqrt{5}}\right] - \left[\frac{3}{\sqrt{5}-\sqrt{2}} \times \frac{\sqrt{5}+\sqrt{2}}{\sqrt{5}+\sqrt{2}}\right] - \left[\frac{4}{\sqrt{6}+\sqrt{2}} \times \frac{\sqrt{6}-\sqrt{2}}{\sqrt{6}-\sqrt{2}}\right]$

$= (\sqrt{6} + \sqrt{5}) - (\sqrt{5} + \sqrt{2}) - (\sqrt{6} - \sqrt{2})$

$= 0$

=> Ans - (A)

Question 135

The base of a right prism, whose height is 2 cm, is a square. If the total surface area of the prism is 10 cm2, then its volume is:

A $3 \ cm^3$

B $1 \ cm^3$

C $2 \ cm^3$

D $4 \ cm^3$

Answer: C

Explanation:

Let side of base = a cm and height = $h = 2$ cm

Total surface area of prism = Curved surface area + (base+top) area

=> 10 = Perimeter of base $\times$ height + $2\times$ area of base

=> $(4 \times a \times 2) + (2 \times a^2) = 10$

=> $a^2 + 4a - 5 = 0$

=> $a^2 + 5a - a - 5 = 0$

=> $a(a + 5) - 1(a + 5) = 0$

=> $(a + 5)(a - 1) = 0$

=> $a = 1$ $[\because a$ cannot be negative.$]$

$\therefore$ Volume = Base area $\times$ height

= $(1)^2 \times 2 = 2\ cm^3$

=> Ans - (C)

Question 136

If $p(x + y)^2 = 5$ and $q(x - y)^2 = 3$, then the simplified value of $p^2(x + y)^2 + 4\,pq\,xy - q^2(x - y)^2$ is:

A $-(p + q)$

B $2(p + q)$

C $p + q$

D $-2(p + q)$

Answer: B

Question 137

A certain sum of money amount to Rs. 2200 at 5 % p.a. Rate of interest, Rs. 2320 at 8% interest in the same period of time. The period of time is:

A   3 years

B   4 years

C   5 years

D   2 years

Answer: D

Explanation:
Let principal sum = Rs. $100x$ and time period = t years

Amount under simple interest = $P + \left(\frac{P \times R \times T}{100}\right)$

According to ques,

=> $100x + \left(\frac{100x \times 5 \times t}{100}\right) = 2200$

=> $100x + 5tx = 2200$

=> $x(20 + t) = 440$

=> $x = \frac{440}{(20 + t)}$ -----------(i)

Similarly, $100x + \left(\frac{100x \times 8 \times t}{100}\right) = 2320$

=> $100x + 8tx = 2320$

=> $x(100 + 8t) = 2320$

=> $x = \frac{2320}{(100+8t)}$ ------------(ii)

Comparing equations (i) and (ii), we get :

=> $\frac{440}{20+t} = \frac{2320}{100+8t}$

=> $4400 + 352t = 4640 + 232t$

=> $352t - 232t = 4640 - 4400$

=> $120t = 240$

=> $t = \frac{240}{120} = 2$ years

=> Ans - (D)

Question 138

The present ages of A and B are in the ratio 5 : 6 respectively. After seven years this ratio becomes 6: 7. Then the present age of A in years is:

A 35 years

B 32 years

C 33 years

D 30 years

Answer: A

Explanation:
Let present age of A = $5x$ years and B = $6x$ years

According to ques,

=> $\frac{5x+7}{6x+7} = \frac{6}{7}$

=> $35x + 49 = 36x + 42$

=> $36x - 35x = 49 - 42$

=> $x = 7$

∴ Present age of A = $5 \times 7 = 35$ years

=> Ans - (A)

Question 139

$\angle Y$ is the right angle of the triangle XYZ. If $XY = 2\sqrt{6}$ cm and $XZ - YZ = 2$ cm, then the value of $(secX + tanX)$ is:

A $\frac{1}{\sqrt{6}}$

B $\frac{1}{2\sqrt{3}}$

C $2\sqrt{6}$

D $\sqrt{6}$

Answer: D

Explanation:
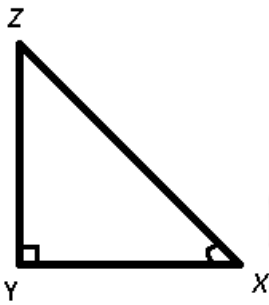
Given : $XY = 2\sqrt{6}$ cm and $XZ - YZ = 2$

To find : $(secX + tanX) = ?$

Solution : In $\triangle$ XYZ,

$=> (XY)^2 = (XZ)^2 - (YZ)^2$

$=> (2\sqrt{6})^2 = (XZ - YZ)(XZ + YZ)$

$=> (2)(XZ + YZ) = 24$

$=> (XZ + YZ) = \frac{24}{2} = 12$ ------------(i)

$\therefore (secX + tanX)$

$= \left(\frac{XZ}{XY}\right) + \left(\frac{YZ}{XY}\right) = \frac{(XZ+YZ)}{XY}$

$= \frac{12}{2\sqrt{6}} = \sqrt{6}$

=> Ans - (D)

Question 140

In $\triangle$ABC, the line parallel to BC intersects AB and AC at P and Q respectively. If $AB : AP = 5 : 3$, then $AQ : QC$ is:

A $3 : 2$

B $2 : 3$

C $3 : 5$

D $1 : 2$

Answer: A

Explanation:
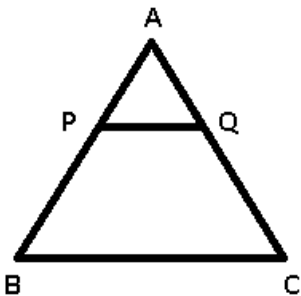
Given : PQ $\parallel$ BC and $AB : AP = 5 : 3$

To find : $AQ : QC$

Solution : In $\triangle$ APQ and $\triangle$ ABC,

$\angle$ APQ = $\angle$ ABC   (Corresponding angles)

$\angle$ AQP = $\angle$ ACB (Corresponding angles)

=> $\triangle$ APQ $\sim$ $\triangle$ ABC (By AA criterion)

=> $\frac{AQ}{QC} = \frac{AP}{PB}$

=> $\frac{AQ}{QC} = \frac{AP}{AB-AP}$

$\frac{AQ}{QC} = \frac{3}{2}$

=> Ans - (A)

Question 141

Three containers whose volumes are in the ratio of 2 : 3 : 4 are full of mixture of spirit and water. In the 1st container, the ratio of spirit and water is 4: 1, in the 2nd container the ratio is 11 : 4 and in the 3rd container ratio is 7: 3. All the three mixture are mixed in a big container. The ratio of spirit and water in the resultant mixture is :

A 4 : 9

B 11 : 4

C 5 : 10

D 9 : 5

  Answer: B

Explanation:

Let volume of each container be 30, 45, 60 litres respectively.

In *1st container*, spirit = $\frac{4}{(4+1)} \times 30 = 24$ litres

=> Water = $30 - 24 = 6$ litres

Similarly, in *2nd container*, spirit = 33 litres and water = 12 litres

And in *3rd container*, spirit = 42 litres and water = 18 litres

After mixing, total spirit = $24 + 33 + 42 = 99$ litres and water = $6 + 12 + 18 = 36$ litres

∴ Required ratio = **11 : 4**

=> Ans - (B)

Question 142

If the difference between the average of x, y and y, z is 12 then the difference between x and z is:

A 24

B 48

C 12

D 6

  Answer: A

Explanation:

Average of x, y = $\frac{(x+y)}{2}$

Average of y, z = $\frac{(y+z)}{2}$

According to ques,

=> $\binom{x+y}{2} - \binom{y+z}{2} = 12$

=> $\frac{x-z}{2} = 12$

=> $(x - z) = 12 \times 2 = 24$

=> Ans - (A)

Question 143

PS is a diameter of a circle of radius 6 cm. In the diameter PS, Q and R are two point such that PQ, QR and RS are all equal. Semicircles are drawn on PQ and QS as diameter (as shown in the figure). The perimeter of shaded portion is:
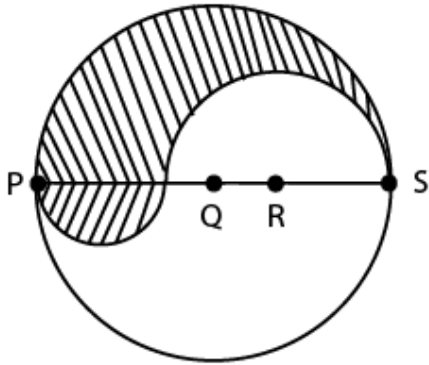
A $15\frac{6}{7}$ cm

B $75\frac{3}{7}$ cm

C $37\frac{5}{7}$ cm

D $18\frac{6}{7}$ cm

Answer: C

Explanation:

It is given that PS = 12 cm

Also, PQ = QR = RS = $\frac{12}{3}$ = 4 cm

Radius of circle having diameter PQ (4 cm) = $r_1 = 2$ cm

Radius of circle having diameter QS (8 cm) = $r_2 = 4$ cm

Radius of circle having diameter PS (12 cm) = $r_3 = 6$ cm

=> The perimeter of shaded portion = $(\pi r_1) + (\pi r_2) + (\pi r_3)$

= $\pi(2 + 4 + 6)$

= $\frac{22}{7} \times 12 = \frac{264}{7} = 37\frac{5}{7}$ cm

=> Ans - (C)

Question 144

The ratio of inradius and circumradius of an equilateral triangle is:

A $1 : 2$

B $2 : 1$

C $1 : \sqrt{2}$

D $\sqrt{2} : 1$

Answer: A

Explanation:

Let the side of the equilateral triangle be a cm

=> Circumradius = $R = \frac{a}{\sqrt{3}}$ cm

and Inradius = $r = \frac{a}{2\sqrt{3}}$ cm

=> $\frac{r}{R} = \frac{1}{2}$

$\therefore$ Ratio of inradius and circumradius of an equilateral triangle = **1:2**

=> Ans - (A)

Question 145

In the adjoining figure $\angle AOC = 140°$ where O is the centre of the circle then $\angle ABC$ is equal to:
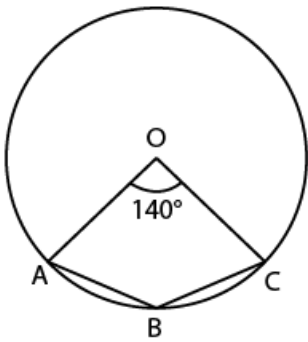
A 110°

B 100°

C 90°

D 40°

Answer: A

Explanation:
Given : $\angle AOC = 140°$

To find : $\angle ABC =?$

Solution : Reflex $(\angle AOC) = 360° - 140° = 220°$

Angle at the centre is double the angle subtended by the arc at any point on the circle.

=> $\angle ABC = \frac{220°}{2} = 110°$

=> Ans - (A)

Question 146

Let ABCDEF be a prism whose base is a right angled triangle, where sides adjacent to $90°$ are 9 cm and 12 cm. If the cost of painting the prism is Rs. 151.20, at the rate of 20 paise per sq cm then the height of the prism is:

A 17 cm

B 18 cm

C 15 cm

D 16 cm

Answer: B

Explanation:

Cost of painting the prism at 20 paise per cm sq. = Rs. 151.20

=> Total surface area of prism = $151.20 \times \frac{100}{20} = 756 \ cm^2$

Let height of prism = h cm

Hypotenuse of right angled triangle = $h = \sqrt{l^2 + b^2}$

=> $h = \sqrt{(9)^2 + (12)^2}$

=> $h = \sqrt{81 + 144} = \sqrt{225} = 15$ cm

Thus, perimeter of base = $9 + 12 + 15 = 36$ cm -------------(i)

Area of base = $\frac{1}{2} \times 9 \times 12 = 54 \ cm^2$ -------------(ii)

Total surface area of prism = Curved surface area + (base+top) area

=> 756 = Perimeter of base $\times$ height + $2\times$ area of base

=> $(36 \times h) + (2 \times 54) = 756$

=> $36h = 756 - 108$

=> $h = \frac{648}{36} = 18$ cm

=> Ans - (B)

Question 147

If $\sec \theta + \tan \theta = 2$**, then the value of** $\sin \theta$ **is:**

A $\frac{4}{5}$

B $\frac{\sqrt{3}}{5}$

C $\frac{2}{5}$

D $\frac{3}{5}$

Answer: D

Explanation:

Given : $\sec \theta + \tan \theta = 2$ ----------(i)

Also, $sec^2\theta - tan^2\theta = 1$

=> $(sec\theta - tan\theta)(sec\theta + tan\theta) = 1$

=> $\sec \theta - \tan \theta = \frac{1}{2}$ ---------(ii)

Adding equations (i) and (ii), => $2sec\theta = 2 + \frac{1}{2} = \frac{5}{2}$

=> $sec\theta = \frac{5}{4}$

=> $cos\theta = \frac{4}{5}$

$\therefore sin\theta = \sqrt{1 - cos^2\theta}$

$$= \sqrt{1 - \left(\tfrac{4}{5}\right)^2} = \sqrt{1 - \tfrac{16}{25}}$$

$$= \sqrt{\tfrac{9}{25}} = \tfrac{3}{5}$$

=> Ans - (D)

Question 148

The simple interest on a sum of money for 3 years is Rs. 240 and the compound interest on the same sum, at the same rate for 2 years is Rs. 170. The rate of interest is:

A 8 %

B $29\tfrac{1}{6}$ %

C $12\tfrac{1}{2}$ %

D $5\tfrac{5}{17}$ %

Answer: C

Explanation:

Let principal sum = Rs. $100x$ and rate of interest = $r\%$

Simple interest = $\tfrac{P \times R \times T}{100}$

=> $\tfrac{100x \times r \times 3}{100} = 240$

=> $3rx = 240$

=> $x = \tfrac{240}{3r} = \tfrac{80}{r}$

Compound interest = $P[(1 + \tfrac{R}{100})^T - 1]$

=> $100x[(1 + \tfrac{r}{100})^2 - 1] = 170$

=> $(100 \times \tfrac{80}{r})[(1 + \tfrac{r}{100})^2 - 1] = 170$

=> $\tfrac{800}{r} \times (1 + \tfrac{r^2}{10000} + \tfrac{2r}{100} - 1) = 17$

=> $\tfrac{8r}{100} + 16 = 17$

=> $\tfrac{8r}{100} = 17 - 16 = 1$

=> $r = \tfrac{100}{8} = 12\tfrac{1}{2}\%$

=> Ans - (C)

Question 149

If $x + \tfrac{1}{x} = -2$ then the value of $x^p + x^q$ is: (Where p is an even number and q is an odd number)

A -2

B 2

C 1

D 0

Answer: D

Explanation:

Given : $x + \tfrac{1}{x} = -2$

$$=> \frac{x^2+1}{x} = -2$$

$$=> x^2 + 1 + 2x = 0$$

$$=> (x+1)^2 = 0$$

$$=> x + 1 = 0$$

$$=> x = -1$$

$\therefore x^p + x^q$ (let $p = 2$ and $q = 1$)

$$=> (-1)^2 + (-1)^1 = 1 - 1 = 0$$

=> Ans - (D)

Question 150

If the area of a square is increased by 44%, retaining its shape as a square, each of its sides increases by:

A   19%

B   21%

C   22%

D   20%

Answer: D

Explanation:

Let the side of square be $a = 10$ cm

=> Area = $A = 10 \times 10 = 100 \, cm^2$

New area = $100 + (\frac{44}{100} \times 100) = 144 \, cm^2$

=> New side = $a' = \sqrt{144} = 12$ cm

$\therefore$ Increase in area = $\frac{(12-10)}{10} \times 100$

= $2 \times 10 = 20\%$

=> Ans - (D)

English

Instructions

In the following questions, you have a brief passage with 5 questions following carefully and choose the best answer to each question out of the four alternatives.

PASSAGE
Fat comes in two types; Omega-3 which is found in marine life and Omega-6 which is concentrated in vegetable oils. The first is good, the other ios plain rotten. The best source of Omega-3 is preferably sea-fish. But frying it in Omega-6 rich vegetable oil kills all its goodness.

Ageing brains have low levels of thiamin, which is concentrated in wheat germ and bran, nuts, meat and cereals. More good brain-food comes from liver, milk and almonds, which are rich in riboflavin and extremely good for memory. Carotene, available in deep green leafy vegetables and fruits, is also good for geriatric brains. So is a high iron diet; it can make old brains gallop hyperactively like young ones. Iron comes from greens; liver, shellfish, red meat and soybeans. Seafood, very high in iron, is an excellent diet supplement. The New England Journal of Medicine reported in its May 1985 issue that 30 grams of fish a day could result in a dramatic drop in the chances of acquiring a cardiovascular disease. Sea fish, particularly shellfish, crabs, mackerel and sardines, are more effective than riverine fish

because the latter is more vulnerable to chemical effluents.

Question 151

30 grams of fish a day could result in:

A   an increased chance of acquiring lung disease.

B   a drop in the chances of getting lung cancer

C   a drop in the chances of getting heart disease

D   an increased chance of acquiring heart disease

  Answer: C

Question 152

'Geriatrics' pertain to:

A   adolescents

B   old people

C   new born babies

D   toddlers

  Answer: B

Question 153

Almonds are rich in riboflavin and are good for :

A   memory

B   leukaemia

C   sleep walking

D   anaemia

  Answer: B

Question 154

he best source of Omega-3 fat is found in:

A   vegetables

B   eggs only

C   sea fish

D   all dairy products

  Answer: C

Question 155

Cardiovascular relates to the:

A   heart and cartilage

B   heart and muscles

C   heart and tendons

D   heart and blood vessels

   Answer: D

Instructions

Four words are given in each question, out of which only one word is correctly spelt. Find the correctly spelt.

Question 156

A   Pseudonym

B   Seudonym

C   Pseudonymn

D   Soodonym

   Answer: A

Question 157

A   zenophobia

B   zenofobia

C   xenophobia

D   xenofobia

   Answer: C

Question 158

A   gormandise

B   gormandize

C   gourmendize

D   gourmandize

   Answer: D

Question 159

A   appiarance

B apearance

C appearance

D apparance

Answer: C

Question 160

A connoisseur

B connoiseur

C connoisure

D conoisseur

Answer: A

Instructions

In the following passage some of the words have been left out. Read the passage carefully and choose the correct answer to each question out of the four alternatives and fill in the blanks.
PASSAGE
It's soccer's newest power player; a bball called the Soccket generates and stores energy as players kick it, then provides energy at home. Fifteen minutes on the field (I) enough energy to power a small light for three hours and may help people in developing nations like India (II) kerosene, a leading cause of (III) illness and fires. Working on the principle of flashlights that charge when shaken, the Soccket is the (IV) of Harvard students Jessica Lin, Julia Sitverman, Jessica Mathews and Hemali Thakker and is being (V) by the Clinton Global initiative University and the Walmart Foundation.

Question 161

A (I) stores

B (I) conserves

C (I) captures

D (I) reserves

Answer: A

Question 162

A (II) substitute

B (II) replace

C (II) restore

D (II) supplant

Answer: D

Question 163

A (III) pulmonary

B (III) respiratory

C (III) cardiac

D (III) cardio-vascular

Answer: B

Question 164

A (IV) output

B (IV) achievement

C (IV) brainchild

D (IV) inventory

Answer: C

Question 165

A (V) funded

B (V) financed

C (V) promoted

D (V) sponsored

Answer: C

Instructions

In the following questions, a sentence part of the sentence is printed in bold. Below are given alternative to the bold sentence/part of the sentence which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is No improvement.

Question 166

College students went at the rampage in the city yesterday.

A with the rampage

B No Improvement

C on a rampage

D over the rampage

Answer: C

Question 167

I meet the two girls, which I believe, are identical twins.

A who I believe are

B No Improvement

C who to my belief, are

D whom I thought, are

Answer: D

Question 168

Helen Keller's efforts to rehabilitate herself despite her triple handicap.

A manage

B No Improvement

C creadapt

D reinstate

Answer: A

Question 169

I would gladly accompany your sister if you had asked me.

A will gladly accompany

B would have gladly accompanied

C would gladly accompanied

D No Improvement

Answer: B

Question 170

You cannot forbid him leaving.

A his leaving

B he leaving

C him to leave

D No Improvement

Answer: A

Instructions

Sentences are given with blanks to be filed in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four.

Question 171

The Press is supposed to be a means of _____ between the government and the ____

A communication; people

B help; society

C confrontation; terrorists

D propaganda; private sector

Answer: A

Question 172

I _____ him for the post _____ he was very active.

A acknowledged; and

B admitted; but

C commended; even though

D recommended; because

Answer: D

Question 173

The man was absorbed _____ his work.

A at

B into

C with

D in

Answer: D

Question 174

You friends think you are conceited because you seem to ____ them.

A emulate

B penalize

C patronize

D cheat

Answer: A

Question 175

He reads _____ that are _____ to his profession.

A weeklies ; appropriate

B papers; apparent

C   periodicals; pertinent

D   magazines; acceptable

    Answer: C

Instructions

In the following questions, choose the word opposite in meaning to the given word.

Question 176

Erudite

A   Unimaginative

B   Immature

C   Ignorant

D   Professional

    Answer: C

Question 177

Profuse

A   Sacred

B   Ambiguous

C   Meager

D   Adverse

    Answer: C

Question 178

Agony

A   Conflict

B   Sorrow

C   Misery

D   Ecstasy

    Answer: D

Question 179

Subsequent

A   Aloof

B Preceding

C Inferior

D Dismissive

Answer: B

Question 180

Redundant

A Wordy

B Concise

C Surplus

D Repetitions

Answer: B

Instructions

In the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentences.

Question 181

Reasoning method involving two statements from which a conclusion is reached:

A Logism

B Syllogism

C Rheotoric

D Rhapsody

Answer: B

Question 182

Those who pass through this gate without permission will be prosecuted.

A By passerts

B Tresspassers

C Culprits

D Absconders

Answer: B

Question 183

Change the appearance to deceive or to hide the identify.

A Dissemble

B Disguise

C Dupe

D Display

Answer: B

Question 184

A person between 90 and 100 years old:

A Septagenarian

B Nonagenarian

C Centenarian

D Octagenarian

Answer: B

Question 185

The science of the functioning and growth of society.

A Anthroupology

B Philosophy

C Sociology

D Psychology

Answer: A

Instructions

In the following questions, some parts of the sentences have errors and some are correct. Find out which part of a sentence has an error. The number of that part is the answer. If a sentence is free from error, your answer is No Error.

Question 186

Before we returned from swimming in the river near the camp, someone had stole our clothes, and we had to walk back with our towels around us.

A No Error

B and we had to walk back with <u>our</u> towels around us.

C Before we returned from swimming in the river near the camp

D someone had stole our clothes

Answer: D

Question 187

He went to the doctor because he had not been feeling well since several weeks.

A He went to the

B since several weeks

C because he had not been feeling well

D No Error

    Answer: B

Question 188

Had you participated in the drawing competition, you would have won the first prize.

A No Error

B in the drawing competition

C Had you participated

D you would have won the first prize

    Answer: A

Question 189

Long life is good if one be happy and has friends.

A and has friends

B if one be happy

C No Error

D Long life is good

    Answer: B

Question 190

The thief did not know that there was a dog laying under the table.

A that there was a dog

B laying under the table

C No Error

D The thief did not know

    Answer: B

Instructions

In the following questions, four alternatives are given for the Idiom/Phrase printed in bold in the sentence. Choose the alternative which best expresses the meaning of the Idiom/Phrase.

Question 191

To put one's hand to plough

A   to take up a difficult take

B   to get entangled into unnecessary things

C   to take up agricultural farming

D   take interest in technical work

Answer: A

Question 192

To pick holes

A   to find some reason to quarrel

B   to criticise someone

C   to cut some part of an item

D   to destroy something

Answer: B

Question 193

He is like a snake in the grass for our family.

A   a stupid person

B   a close friend

C   a distant relative

D   a hidden rival

Answer: D

Question 194

God's acre refers to which of the following places:

A   Church

B   Aisle

C   A cemetery beside a Church

D   Altar

Answer: C

Question 195

She wrangled over an ass's shadow.

A   did unnecessary work

B   quarrelled like fools

C sat on the shadow of the ass

D quarrelled over trifles

Answer: D

Instructions

In the following questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.

Question 196

Sporadic

A Occasional

B Whirling

C Epidermic

D Stagnant

Answer: A

Question 197

Spectrum

A Star

B Telephone

C Range

D Specific

Answer: C

Question 198

Regime

A Clique

B Authority

C Cabal

D Gang

Answer: B

Question 199

Stringent

A Evident

B Farfetched

C Strict

D Compulsory

    Answer: C

Question 200

Connote

A To pay

B To convey

C To conspire

D To print

    Answer: B